

REMARKS

Claims 1, 4, 5, 7, 9 and 10-16 are pending in this application. Claims 2 and 3 have been canceled. Claim 1 and 11-16 have been amended. Reconsideration of the rejections in view of the following remarks is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

Rejections under 35 USC §103(a)

Claims 1-5, 7, and 9-16 are rejected under 35 U.S.C. §103(a) as being obvious over Nagayama et al (U.S. Patent No. 5,779,453) in view of Takura, and further in view of Naito et al (U.S. Patent No. 5,929,541).

Claim 1 has been amended to recite, among other things, "a motor rotor having salient poles said motor rotor being made of highly-corrosion resistant-metal magnetic material, each of said **salient poles being a protrusion portion of unitary formed rotating body**;" and "a motor stator having magnetic poles, said stator being molded in a highly corrosion resistant synthetic resin material molding which has **a surface positioned radially inwardly of an inner circumferential surface of said stator**."

Claim 11 also has been amended to include the same recitations.

In Nagayama et al, the motor rotor does not have salient poles and naturally there is no salient pole which is a protrusion portion of unitary formed rotating body. Also, the motor rotor is made of bonded magnet but not of metal magnetic material. Also, in Nagayama et al, the molding does not have a surface

positioned radially inwardly of an inner circumferential surface of said stator. Moreover, in Nagayama et al, bonded magnets are used for the motor rotor, which have poor mechanical strength, a motor rotor with such bonded magnets are not suitable for high speed rotation.

In Takura, the rotor has magnetic poles provided by one or more permanent magnets (12 or 14). The magnetic poles are not protrusion portions of unitary formed rotating body. Also, nothing indicates that the motor rotor is made of metal magnetic material which is highly resistant to corrosion. Also, the motor stator is not molded in a highly corrosion resistant synthetic resin material molding.

Naito et al has been cited for disclosing rotor poles made of metal magnetic material which is highly resistant to corrosion. Such disclosure of Naito et al, however, does not remedy the above deficiencies of Nagayama et al and Takura.

Thus, Nagayama et al, Takura, and Naito et al do not teach or suggest, among other things, “a motor rotor having salient poles said motor rotor being made of highly-corrosion resistant-metal magnetic material, each of said **salient poles being a protrusion portion of unitary formed rotating body**;” and “a motor stator having magnetic poles, said **stator being molded in a highly corrosion resistant synthetic resin material molding** which has a **surface positioned radially inwardly of an inner circumferential surface of said stator**.”

For at least these reasons, claim 1 and 11 patentably distinguish over Nagayama et al, Takura, and Naito et al. Claims 4, 5, 7, 9 and 10, depending from claim 1, claims 12-16, depending from claim 11, also patentably distinguish over the cited references for at least the same reasons.

**U.S. Patent Application Serial No. 09/633,139**

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Attachment: Version with Markings to Show Changes Made

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VERSION WITH MARKINGS TO SHOW CHANGES MADE S.N. 09/633,139

IN THE CLAIMS:

Claims 2 and 3 have been canceled.

Claims 1 and 11-16 have been amended as follows:

1       1. (Three Times Amended) A gas transfer machine for transferring a gas including a corrosive gas,

2       comprising:

3       a pump rotor mounted on a rotatable shaft for transferring the gas including a corrosive gas;

4       a reluctance-type motor for rotating said rotatable shaft about its own axis directly coupled thereto,

5       said pump rotor and said motor being disposed in a housing;

6       a motor rotor having salient poles of metal magnetic material, which is highly resistant to corrosion

7       said motor rotor being made of highly-corrosion-resistant metal magnetic material, each of said salient poles

8       being a protrusion portion of unitary formed rotating body;

9       a motor stator having magnetic poles, said stator being covered by molded in a highly corrosion

10       resistant synthetic resin material molding which having has a surface positioned radially inwardly of an inner

11       circumferential surface of said stator, which is highly resistant to corrosion;

12       wherein said salient poles of the motor rotor are attracted to rotate by magnetic forces generated

13       by said poles of said stator.

1           11. (Amended) A gas transfer machine for transferring a gas including a corrosive gas, comprising:  
2           a pump rotor mounted on a rotatable shaft for transferring a gas including a corrosive gas;  
3           a reluctance-type motor for rotating said rotatable shaft about its own axis directly coupled thereto,  
4           said pump rotor and said motor being disposed in a housing;  
5           a motor rotor having salient poles of metal magnetic material, which is highly resistant to corrosion  
6           said motor rotor being made of highly-corrosion-resistant metal magnetic material, each of said salient poles  
7           being a protrusion portion of unitary formed rotating body, each of said salient poles having a permanent  
8           magnet enclosed within said protrusion portion of said unitary formed rotating body;  
9           a motor stator having magnetic poles, said stator being ~~covered by~~ molded in a highly-corrosion-  
10          resistant synthetic resin material molding which ~~having~~ has a surface positioned radially inwardly of an inner  
11          circumferential surface of said stator, ~~which is highly resistant to corrosion~~;  
12          wherein said salient poles of the motor rotor are attracted to rotate by magnetic forces generated  
13          by said poles of said stator.

12. (Amended) A gas transfer machine according to claim 9 11, wherein said stator is embedded  
in a molded body of said resin material.

13. (Amended) A gas transfer machine according to claim 9 11, wherein said resin material  
comprises a can of synthetic resin or nonconductive material.

14. (Amended) A gas transfer machine according to claim 9 11, wherein said metal magnetic material comprises an alloy of iron and nickel.

15. (Amended) A gas transfer machine according to claim 9 11, wherein said metal magnetic material comprises permalloy.

16. (Amended) A gas transfer machine according to claim 9 11, wherein said resin material highly resistant to corrosion comprises a can of synthetic resin or nonconductive material.